A case of ectopic pregnancy

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Abstract

Background: Ectopic pregnancy is a condition where pregnancy occurs outside the uterine cavity. It is a life-threatening condition and needs to be acted on urgently when suspected. Ectopic pregnancy should be suspected in any woman in childbearing age presenting with irregular vaginal bleeding like this case.

Case: 36 years old female presented with history of irregular vaginal bleeding and lower abdominal pain and was found to be pregnant on assessment. She was referred to the emergency department with possible miscarriage however on assessment and imaging she was found to have disturbed ectopic pregnancy in fallopian tube.

Conclusion: This case highlights the importance of careful history taking and assessment in women presenting with vaginal bleeding and taking the appropriate steps in arranging urgent management for this life-threatening condition. It is also a reminder that not all cases have a typical presentation and ectopic pregnancy should be suspected in women of childbearing age presenting with vaginal bleeding or abdominal pain. In fact ectopic pregnancy should be suspected until proven otherwise.

Key words: ectopic pregnancy, vaginal bleeding.

Background

Ectopic pregnancy happens as a result of the implantation of fertilized egg outside of the uterine cavity. Prevalence of ectopic pregnancy is 1%, while ruptured ectopic pregnancy accounts for 2.7% of pregnancy related deaths (1). It is considered as one of the main, if not the leading cause of mortality in early pregnancy, hence timely management plans are very important in patient safety (2).

There are many theories involved in the etiology of ectopic pregnancy such as previous abdominal surgery, previous ectopic pregnancy and most importantly history of infertility (3).

Case Report

We present a 36-year-old female patient of Bangladeshi origin who presented to her family physician with vaginal spotting for 4 weeks. Her only medical concern was that bleeding didn't stop and she was hoping to have a medical treatment to stop her bleeding. The bleeding was mild to moderate, and she had lower abdominal pain described as period pain, but was not significant enough to take any pain relief medication and was not affecting her daily activity. She had no vomiting or fever. She had previous history of irregular periods and told her doctor that she has had no periods for over 12 months prior to review. She was sexually active, and she was not on contraception and not breast feeding. She had two previous normal vaginal deliveries with no complications. She was not on any regular medications, was a non-smoker and didn't drink alcohol. She had no family history of significance.

She described abdominal pain and irregular vaginal bleeding varying in intensity from mild spotting to a normal period like bleeding. She did not feel the need to take analgesia. She thought she was on her period but when the bleeding continued she asked if she could have a hormonal tablet to stop her bleeding. She never thought she could be pregnant, and she initially declined a pregnancy test thinking it was unnecessary. On examination she appeared well with normal vital signs, her abdomen was soft non tender with no guarding or rigidity. She had normal bowel sounds on auscultation. Pregnancy was confirmed on urine test. She was referred immediately to women's hospital emergency department with suspected miscarriage / threatened miscarriage.

Her white cell count and neutrophils were raised on admission with raised beta hCG levels.

On speculum examination, cervix was closed with slight vaginal bleeding seen.

Ultrasound scan showed a left adnexal sac like structure containing yolk sac and non-viable fetal pole at six weeks. There was pelvic hematoma, mild unclear pelvic free fluid and mild hepatorenal free fluid suggestive of a picture of disturbed ectopic pregnancy.

She was taken to theatre and underwent left fallopian tube salpingectomy. She was monitored postoperatively in the ward and was discharged after two days with follow up in the gynecology clinic in two weeks' time.

Discussion

There is no doubt that ectopic pregnancy is a medical emergency and careful assessment, and examination is very important. The initial assessment in history taking should include review of the present complaint and gynecological history including last menstrual period, sexual history and contraception history.

The estimated rate of ectopic pregnancy is 1-2% in the population, and the rate is higher in those who use assisted reproduction techniques, up to 5% (4). Around 95% of ectopic pregnancies occur in the fallopian tube while less than 5% occur in the interstitial segment of the fallopian tube, cervix, cesarean section scar, ovary, or peritoneal cavity (5).

The typical symptoms of ectopic pregnancy occur around six to nine weeks of pregnancy. The presentation can vary from asymptomatic to clinically unstable with signs of shock. The classic triad of symptoms include history of missed period, vaginal spotting or bleeding and pelvic pain. Other symptoms include abdominal pain radiating to shoulder, acute abdomen, and syncope (12).

Traditional risk factors for ectopic pregnancy include previous ectopic pregnancy, previous chlamydia trachomitis, history of infertility, previous abdominal or adnexal surgery, previous use of IUD.

While the absolute risk of ectopic pregnancy in women using IUC is lower than those not on any contraception (rate for LNG-IUS is 0.02 per 100 women and for the Cu-IUD a rate of 0.08 per 100 women), the likelihood of pregnancy being ectopic with intrauterine contraception is higher than that if it occurred without the use of intrauterine contraception (7). The reason for that is because intrauterine contraception is a very effective method overall. If a woman is found to be pregnant while using intrauterine contraception then ectopic pregnancy should be ruled out as there is a 50% chance of it being ectopic (11). Furthermore, intrauterine contraception is not contraindicated in women with history of previous ectopic pregnancy (UKMEC1) (8).

Diagnosis

The mainstay in diagnosis of ectopic pregnancy is ultrasound scan to confirm the site of embryo or yolk sac. In some cases, referred to as pregnancy of unknown location where imaging cannot confirm the site of pregnancy but there is positive pregnancy tests, a serial b-hcg and ultrasound scan should be done to confirm the diagnosis. Once a diagnosis is confirmed treatment can be medical with methotrexate injection or surgical with salpingotomy / salpingectomy (9).

Figure 1 Diagram shows the locations and incidence rates of uncommon ectopic pregnancies (photo courtesy of RSNA publications online / radiographics) (6)

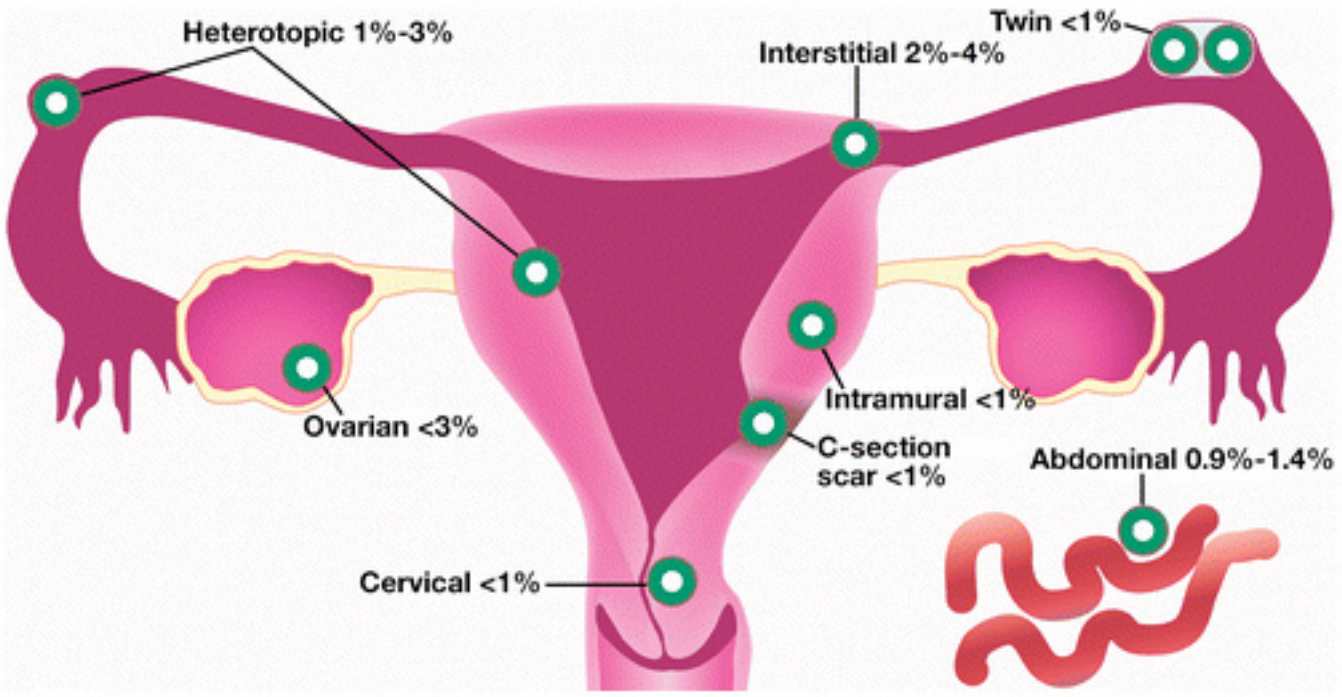
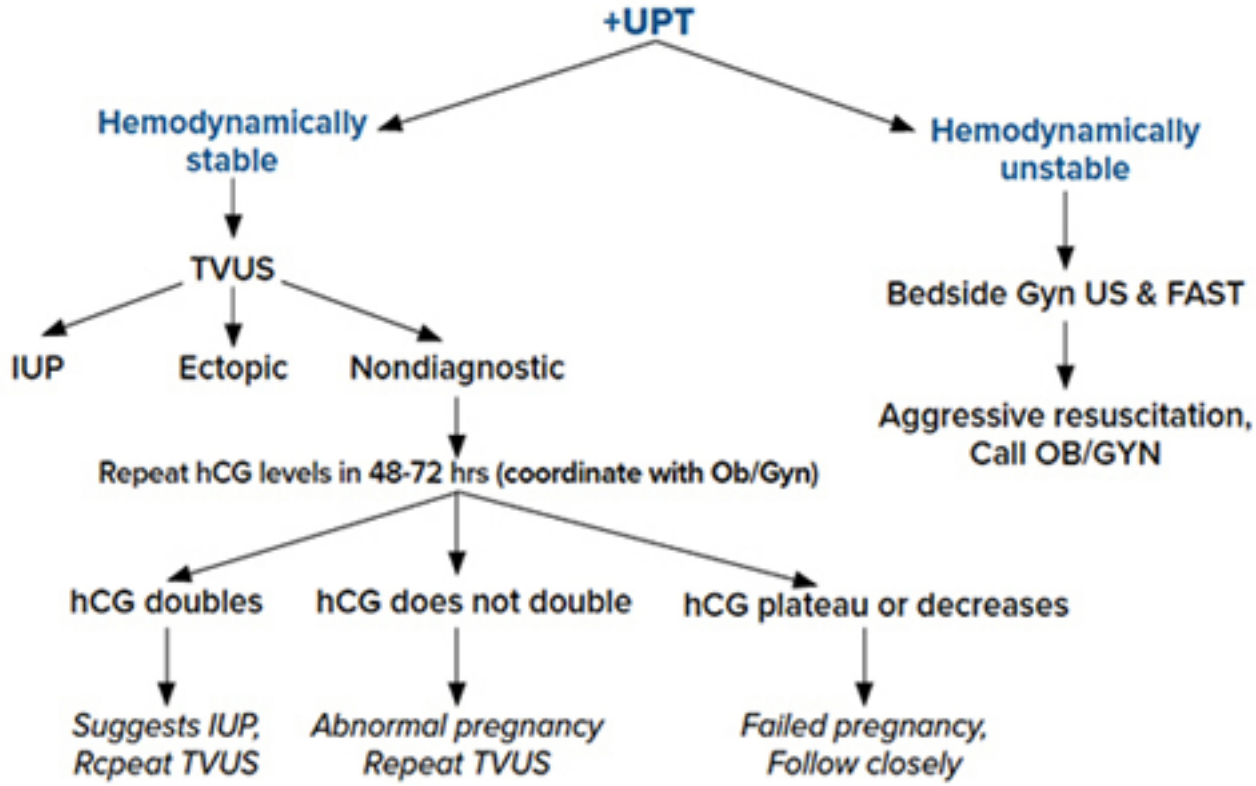


Figure 2 Simplified algorithm to ectopic pregnancy work- up (10)



Conclusion and take home messages

Ectopic pregnancy is a medical emergency and should be suspected in any woman in childbearing age especially those who are clinically hemodynamically unstable with a positive urine pregnancy test. Primary care clinicians should have a low threshold for ordering a pregnancy test even if the chief complaint is not genitourinary related and consider emergency referral to secondary care and women's health unit for monitoring and treatment.

We should also bear in mind that a single transvaginal ultrasound is not necessarily diagnostic in a stable patient because pregnancy can be too early to be seen on imaging.

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